WHAT IS CLAIMED IS :

1. A method to establish a sensitometry curve for a photographic medium, the method comprising:

a) forming on the medium at least one sensitometry control by exposing many ranges of the medium with various exposure energies, the exposure energy of each range being modulated according to a spatial modulation profile (P(x)) identical for all the ranges;

b) capturing optical density values of the sensitometry control in each range and in regions corresponding to various values of the modulation profile;

c) forming sensitometry curve sections, each section being formed from density values captured in various ranges of the sensitometry controls, but in regions corresponding to the same value of the modulation profile of the exposure energies; and

d) calculating and applying energy offsets to the curve sections to obtain partial section overlapping corresponding to neighboring exposure energies.

2. A method according to claim 1, wherein the modulation profile is selected with an amplitude more than a minimum exposure energy difference between the exposure energies of the ranges of the sensitometry control.

3. A method according to claim 2, wherein the modulation profile is selected with an amplitude more than double the minimum exposure energy difference between the exposure energies of the ranges of the sensitometry control.

4. A method according to claim 1, wherein the ranges of the sensitometry control are exposed with energies according to a regular progression.

5. A method according to claim 1, wherein the step d) comprises:

associating each density value with an exposure energy value estimated according to the range of the sensitometry control in which the density value is captured, and

forming sets of density values, each set containing respectively, optical density values captured in various ranges of the sensitometry control but in regions corresponding to the same value (P(x)) of the modulation profile.

6. A method according to claim 5, wherein step d) comprises the uniform offset of all the estimated energy values respectively associated with the optical density values of the same set of density values.

7. A method according to claim 5 further comprising:

forming density matrices whose columns, respectively rows, correspond with increasing density values, respectively decreasing, of the same set of values;

intercorrelating the columns, respectively rows, in relation to at least one column, respectively row, taken as reference;

searching for an energy offset, for each column, respectively row, corresponding to a minimum of an intercorrelation function of the columns, respectively rows; and

applying the energy offset to the estimated exposure energy values of the set of values of the matrix column, respectively row.

8. A method according to claim 7, wherein matrix formation is preceded by the creation of additional couples of density and energy values, calculated by interpolation from the density values captured and the estimated exposure energy values.

9. A method according to claim 7 further comprising the formation of a sensitometry curve from the captured density values, associated with the offset energy values.

10. A method according to claim 1, further comprising, after step d) correcting the estimated exposure energy values.

11. A method according to claim 10, further comprising:
associating with each density value, an exposure energy value estimated according to the range of the sensitometry control in which the density value is captured and according to an estimated value of the modulation profile (P(x)) in the region of the range in which the density value is captured, and
associating a uniform offset of the energy values with at least one set of density values captured in the same range of the sensitometry control, so as to tend to a single sensitometry curve.

12. A method according to claim 11, further comprising searching for minimums of intercorrelation functions of rows or columns of a matrix corresponding to sets of estimated exposure energy values, associated with densities captured in the same range of the sensitometry controls.

13. A method according to claim 5, wherein each density value is associated with a single exposure energy value.

14. A method according to claim 5, wherein each density value is associated with a combination of exposure energy values corresponding to exposures of different colors.

15. A method according to claim 14, wherein the colors are red, green and blue.

16. A method according to claim 1, wherein ranges are successively exposed with exposure energies with preset progression.

17. A method according to claim 1, wherein at least one portion of at least one range of the sensitometry control is exposed to a known reference energy.

18. A method according to claim 1, wherein the sensitometry control is formed by a succession of exposures with various exposure energies, the exposures taking place respectively on a photographic medium fixed in relation to an exposure source.

19. A method according to claim 1, wherein the sensitometry control is formed by varying the exposure energy supplied by a source and moving the photographic medium in front of the exposure source.

20. A method according to claim 1, wherein the sensitometry control is formed by exposing the photographic medium to an exposure source comprising at least one light emitting diode having a non-uniform spatial distribution of light energy.

21. A method according to claim 1, wherein the sensitometry control is formed by exposing the photographic medium to a uniform exposure source associated with a gradual attenuator.